



TRANSESOPHAGEAL ECHOCARDIOGRAM (TEE)

■ WHAT IS A TRANSESOPHAGEAL ECHOCARDIOGRAM?

A transesophageal echocardiogram (TEE) is a test that uses ultrasound waves and a computer to look at your heart. For this test a small, flexible tube (or probe) with an ultrasound transducer at its tip is carefully placed in the esophagus. (The esophagus is the tube that carries food from the throat to the stomach.) The transducer sends high-frequency sound waves to the heart. The sound waves bounce or echo off the heart. A computer uses the echoes to create a moving picture of the heart. The heart valves, chambers, some blood vessels, and the heart muscle itself can be carefully examined.

■ WHEN IS TEE USED?

TEE is used to visualize structures not seen on a standard echocardiogram and to more carefully examine conditions not sufficiently evaluated by a standard echocardiogram. Because the probe is much closer to the back of the heart when it is in the esophagus, the TEE is much more accurate than standard echocardiogram for evaluation of certain conditions.

Common reasons to use TEE are to diagnose infections of the heart valves (endocarditis), to identify small blood clots in the heart, and to find small holes in the heart that allow blood to pass between the two upper chambers of the heart.

TEE may also be used to diagnose a problem called aortic dissection. The aorta is the large blood vessel that goes from the heart to the rest of the body. This vessel sometimes develops a tear between the layers of its wall, allowing bleeding into the wall. If a large amount of bleeding occurs, it may separate the layers of the aorta and cause it to burst. This can have serious consequences, including death. The nearness of the transducer to the aorta allows the doctor to get very good pictures of the aortic wall.

■ HOW DO I PREPARE FOR THE PROCEDURE?

Follow the instructions provided by your doctor. Let your doctor know in advance if you have any problems with your esophagus such as varicose veins (varices), narrowing of the esophagus, or swallowing problems. Do not eat or drink anything after midnight the night before the procedure. Do not even drink coffee, tea or water. Ask your doctor in advance whether you should take your usual medications prior to the procedure. Arrange for someone to take you home after the test.

■ WHAT HAPPENS DURING THE PROCEDURE?

The TEE is done as an outpatient procedure at the hospital. Your heartbeat and breathing will be monitored during the test. The back of your throat will be sprayed with local anesthetic, which will make your throat numb and keep you from gagging. You will be given medicines that make you feel relaxed, but you will be awake. The doctor may ask you to swallow once or twice while the probe is being

positioned. The procedure may be as short as a few minutes or last for a half hour or longer. A doctor is present throughout the procedure. The ultrasound images are recorded for later review by the doctor.

■ **WHAT HAPPENS AFTER THE PROCEDURE?**

After the test, you can go home as soon as you are fully awake. Because of the drugs you will be given for the test, someone should give you a ride home. Your doctor will discuss the results of the TEE with you and your family and determine an appropriate course of treatment.

■ **WHAT ARE THE BENEFITS OF TEE?**

TEE can give information about your heart that is not available from other tests.

■ **WHAT ARE THE RISKS?**

TEE is very safe. Your throat may be sore for a few hours afterward. A very rare complication is a small tear in the esophagus when the probe is swallowed. If this happens, the tear may heal by itself or it may need stitches.